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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,813	12/01/2003	Robert Carey Carr	RC-1gw	5549
7590	05/20/2005		EXAMINER	
Michael I. Kroll 171 Stillwell Lane Syosset, NY 11791			LAU, HOI CHING	
			ART UNIT	PAPER NUMBER
			2636	

DATE MAILED: 05/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/724,813

Applicant(s)

CARR, ROBERT CAREY

Examiner

Hoi C. Lau

Art Unit

2636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 - 13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. Claims 1 – 13 have been examined.

#### ***Specification***

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Trail and Roadway Intersection Safe Alert System.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claim 1** is rejected under 35 U.S.C. 103(a) as being unpatentable over Obeck (U.S. 5,014,052) in view of Patterson et al. (U.S. 4,590,474).

Obeck teaches a traffic control system which comprises:

An emergency vehicle having a first transceiver disposed therein wherein the first transceiver transmits a first signal (column 2, lines 21-28);

The traffic light signal control apparatus having second transceiver disposed therein wherein the second transceiver (Fig 5) receives the first signal and in response thereto activates warning signals at intersection, and, transmits a acknowledging signal back to the first transceiver and the operator of the emergency vehicle (column 2, lines 52-56).

Obeck teaches using the traffic light system at an intersection, Obeck is silent on how the system interacts with pedestrian. However, Obeck's system in lines 4-11 of column 4 show a great variety in the different ways traffic signals are displayed in different localities, depending on local preference and policies.

It is not specifically stated that a pedestrian would have light visible to them. Patterson et al. show the conventionally traffic light system (Fig.1) which combines both traffic light and pedestrian indicators in the same apparatus. Therefore, it is seen that a visible light is provided for pedestrians.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include a pedestrian trail indicator along with the traffic light system at a specific location, especially in a high pedestrian flow area such as school zone, because the pedestrian trail indicator would help both vehicle and pedestrian

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have a clear understanding of the traffic condition at intersection when vehicle and pedestrian approach.

5. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Obeck in view of Patterson et al., in further view of Ellis (U.S. 2002/0126022).

Obeck and Patterson et al. meet all the limitation of Claim 2 except the function of the trail user having a transmitter. Ellis discloses a transmitter for a trail user which comprises:

A transmitter transmits a signal to the trail crossing transceiver;

The trail crossing transceiver receives the transmitter signal and in response thereto activates the traffic warning light for both pedestrian and vehicle roadway.

The difference between the references and the claim is the reference fails to show the second transceiver directly transmits a fourth signal to the first transceiver, however, this feature is shown by Patterson.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include a trail user transmitter because an additional transmitter would provide additional safety for pedestrians.

6. **Claim 3** is rejected under 35 U.S.C. 103(a) as being unpatentable over Obeck in view of Patterson et al., in further view of Ellis.

Obeck teaches an ON/OFF control for the first transceiver that is controlled by the operator of the emergency vehicle (Fig. 4 and column 4, lines 12-16).

7. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over Obeck in view of Patterson et al., in further view of Ellis.

Obeck teaches a visual indication (Fig. 5) to the operator of the emergency vehicle that the means second transceiver disposed in the traffic light system has transmitted the second signal back to the emergency vehicle (column 7, lines 17-34 and lines 48-53).

8. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over Obeck in view of Patterson et al., in further view of Ellis.

Ellis shows a driver warning device include both visual and audio indicator within the vehicle (Fig 3A). The warning device is connected to a receiver and a processor and produces an alert indication when the receiver receives a warning signal (paragraph 108-110 of page 5 and paragraph 111-113 of page 6). The audible indicator, speaker, is mounted adjacent to the drive's seat and is one of the warning devices in vehicle (paragraph 119 of page 6).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include an audible indicator along with the warning device because the audible indicator would provide a more reliable indication system because an addition sense is being used. The implementation of visual or audio or both indicator will be simply easy of Ellis with the base of Obeck.

9. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over Obeck in view of Patterson et al., in further view of Ellis.

Although Obeck teaches using the ON/OFF control at the intersection, Obeck is silent on the ON/OFF control is a physical switch. This feature is deemed to be inherent to the Obeck's system as column 6, line 1-52 show the control system is controlled by a

microprocessor unit that is connected with memory sections where consists of memory cells "on" or "off". And, the microprocessor is an integrated part with the means second transceiver.

10. **Claim 7** is rejected under 35 U.S.C. 103(a) as being unpatentable over Obeck in view of Patterson et al., Ellis, in further view of Leonard et al. (U.S. 6,072,406).

Although Obeck teaches using the traffic light system at the intersection, Obeck is silent on the trail crossing indicator flash a yellow warning light to the vehicle roadway and a red warning light to the pedestrian trail. As stated in Paragraph 4, the traffic light system include both vehicle roadway and pedestrian warning light which the processor controls the change of warning signal. Leonard et al. show a traffic light control apparatus where the trail crossing indicator flashes yellow and red warning light (column 3, lines 49-54, column 5, lines 31-49 and column 6, lines 8-26).

It would have been obvious that Leonard would teach in the combination that to one of ordinary skill in the art at the time of applicant's invention that the pedestrian indicator could be a red light and that the traffic signal indicator could be flash a yellow warning to the vehicle roadway to caution the other non-emergency vehicle driver that emergency vehicle approaching.

11. Claims 8, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Obeck in view of Patterson et al., Ellis and Leonard et al., in further view of Jones (U.S. 2001/0054970).

The combination meets the all the limitation of claims, except to show a battery power supply to the trail crossing indicator for providing power to the means second transceiver and warning lights.

As to **Claims 8 and 9**, Jones shows a pedestrian signal apparatus is operatively associated with the battery for controlling the traffic signal assembly and delivering power from the battery to the traffic signal assembly responsive to a signal from a remote location. It is also be seen that a solar panel for collecting solar energy for delivery to and storage in the battery (Fig. 1,6,8 and Page 3, paragraph 49 and 51). The apparatus may operate through the direct current to alternating current converter of the programmable central control panel (Fig. 13 and Page 6, paragraph 84).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the combination system to include a battery power supply and a solar panel to the trail crossing indicator because the system may utilize proven solar technology to allow stand alone operation, thus eliminating the need for existing electrical power at the installation site.

As to **Claim 10**, ON/OFF control can be done by removing/inserting the power supply.

12. **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over Obeck in view of Patterson et al., Ellis, Leonard et al., Jones, in further view of Miller (U.S. 5,331,325).

All above references meet the all the limitation of claims except they fail to show a visual indication to the trail user that the transmitter is transmitting the third signal.



Miller teaches remote control transmitter which comprises an LED which connected through a resistor for providing a visual indication to the user each time the actuator switch has been pressed (column 5, lines 1-7).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the references to include a visual indicator because the visual indicator provide relevant information to ensure the transmitting process.

### ***Allowable Subject Matter***

13. Claims 12 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Claims 12 and 13** are allowable over the prior art of record since the cited reference taken individually or in combination fails to particularly disclose a passive detector on the trail crossing indicator that activates the red warning light when an emergency vehicle equipped with a strobe light and a motion detector on the trail crossing indicator that activates the yellow warning light when a trail user is nearby.

### ***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Harrison (U.S. 6,384,742) teaches a pedestrian crosswalk apparatus can be conventionally powered from existing overhead or underground power line or solar powered for stand-alone applications. Smith et al (U.S. 4,775,865) shows an a system for providing early warning of the approach and egress of emergency vehicles in which the warning system provides a display to indicate the direction from


which the emergency vehicle is approaching and in addition provides preemption control of the traffic signals at an intersection. Gerstenberger et al. (U.S. 5,652,569) shows a transmitter device contains an on/off switch and a visual indicator which trigger by the user to communicate with the receiver. Munkberg (U.S. 4,162,477) teaches a traffic signal control system that is responsive to optical signals transmitted by optical energy transmitters carries on designated vehicles. Houten et al. (U.S. Re.36,930) teaches a pedestrians apparatus comprises a motion detector has an output connected to an input of the pedestrian signal control where such an auditory message is generated when a pedestrian activates a motion detector by stepping up to the curb adjacent to the crosswalk.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoi C. Lau whose telephone number is (571)272-8547. The examiner can normally be reached on M- F 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Hofsass can be reached on (571)272-2981. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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